APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,027	02/14/2002	Yoshikazu Aoki	122.1488	7499

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER
MERED, HABTE

ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/075,027	AOKI, YOSHIKAZU
	Examiner	Art Unit
	Habte Mered	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _27 November 2006_.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1,3,5,7,8,10,12 and 14-18_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) _16-18_ is/are allowed.

6) ☒ Claim(s) _1,3,5,7,8,10,12,14 and 15_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　　1. ☐ Certified copies of the priority documents have been received.

　　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   The amendment filed on 11/27/2006 has been entered and fully considered.

2.   Claims 2, 4, 6, 9, 11, and 13 are previously cancelled. Claims 1, 3, 5, 7, 8, 10,

12, and 14-18 are pending. The base independent claims are 1, 7, 8, 14, 15, 16,

17, and 18.

Claim Objections

3.   **Claims 3, 10, 16, 17, and 18** are objected to because of the following

informalities:

-   In **claim 3**, in line 15 the phrase "...in each of the transmission lines..." should

    be replaced with the phrase "...in each of the transmission line ..."

-   In **claim 10**, in line 15 the phrase "...in each of the transmission lines..."

    should be replaced with the phrase "...in each of the transmission line ..."

-   In **claim 16**, in line 17 the phrase "...in each of the transmission lines..."

    should be replaced with the phrase "...in each of the transmission line ..."

-   In **claim 17**, in lines 14-15 the phrase "...in each of the transmission lines..."

    should be replaced with the phrase "...in each of the transmission line ..."

-   In **claim 18**, in line 24 the phrase "...in each of the transmission lines..."

    should be replaced with the phrase "...in each of the transmission line ..."

The Examiner also recommends replacing the phrase "number of nodes

executed" with "number of nodes polled" in all of the claims pending in this instant

Application. Use of phrases like "nodes executed" are objected because they cause

ambiguity and serve no meaningful purpose. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claim 1, 7, 8, 14, and 15** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. **Claim 1** recites the limitation " said control unit" in line 13 of claim 1. There is insufficient antecedent basis for this limitation in the claim.

7. **Claims 1, 7, 8, 14, and 15** recite a comparison of a first ratio and a second ratio. The cited limitation renders these claims to be indefinite. Namely, the phrase "a comparison of a first ratio and a second ratio" is indefinite because it fails to specify the type of the ratio in terms of what the numerator and the denominator is and thereby rendering the scope of these claims unascertainable.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1, 7, 8, 14, and 15** <u>as best understood in view of the above 112 2nd paragraph rejections</u> are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (US 6, 507, 565), in view of in view of Jun (Japanese Patent Publication Number

10327148 A) and Takashi et al (Japanese Patent Publication Number 02-131044),

hereinafter referred to as Takashi.

Taylor teaches a method and system for managing remote resources in a

telecommunication network.

Taylor teaches a system, a method and a computer-readable program

for dispersing the load of network in data communications between a monitoring unit

(Figure 1, element 14, i.e. Resource Management Station) and a plurality of remote

nodes **(Figure 1, elements 36 and 12)** that are connected to the monitoring unit via a

broadband network **(Connection is ADSL – See Column 2:53-65)**, where in the

monitoring unit comprises: a communication or polling order determining unit **(Figure 1,**

elements 92 and 74 and Figure 2, step 206 and Column 7:45-51) that determines an

order of communications between the monitoring unit and the plurality of remote nodes,

a communication or polling interval determining unit **(Figure 1, element 90 and Figure**

step 200 and Column 7:45-51) that determines a communication interval between a

remote node with which the monitoring unit communicates this time and a *different*

remote node with which the monitoring unit communicates a next time, among the

plurality of remote nodes that communicate with the monitoring unit. **(See also Column**

5:65-67 and Column 6:1-23)

Taylor fails to disclose a method of avoiding local traffic congestion in a

communication route.

Jun teaches a communication network management method that avoids local

traffic congestion by varying the polling interval.

Jun discloses a method of avoiding local traffic congestion in a communication

route. **(See Abstract and solution sections as well as Paragraphs 19 and 20)**

It would have been obvious to one having ordinary skill in the art at the time the

invention was made to modify Taylor's system with a method of avoiding local traffic

congestion in a communication route. The motivation for avoiding local congestion

during polling is to have a fair distribution of the polling process amongst polled nodes.

Taylor fails to disclose a system and method for dispersing the load of a network

wherein the communication interval is obtained as follows: a repetition period for

repetitively executing communications with the whole plurality of remote nodes is

divided by a total number of the remote nodes, and a quotient obtained is subtracted by

a processing time per one node thereby to obtain the communication interval which

includes a communication waiting time.

Takashi teaches a polling sequence deciding system.

Takashi teaches a system and method for dispersing the load of a network

wherein the communication interval is obtained as follows: a repetition period for

repetitively executing communications with the whole plurality of remote nodes is

divided by a total number of the remote nodes, and a quotient (i.e. a ratio) obtained is

subtracted by a processing time per one node thereby to obtain the communication

interval which includes a communication waiting time. **(Takashi teaches a polling**

control unit – see the abstract and constitution sections. Takashi shows in

particular in the constitution section that once a polling period is determined for

polling the nodes in the network then the polling interval is simply the quotient

from the division of the polling period by the total number of nodes. Taking into account each node's processing time by subtracting it from the quotient does not change the effective polling interval from being the quotient as taught by Takashi from the perspective of the next node about to be polled.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Taylor's system with a polling sequence where the whole plurality of remote nodes is divided by a total number of the remote nodes, and a quotient obtained is subtracted by a processing time per one node thereby to obtain the communication interval which includes a communication waiting time. The motivation of using such a means of determining a polling interval is its simplicity to use and provides fairness to all potential nodes participating in the polling system.

Allowable Subject Matter

1.   Claims 16-18 are allowed

2.   The following is an examiner's statement of reasons for allowance:

Claims 16, 17, and 18 are allowable over the prior art of record since the cited references, taken individually or in combination, fail to particularly teach or suggest a system (i.e. claim 16), a method (i.e. claim 17), a computer-readable recording medium (i.e. claim 18) for distributing the load of a monitoring unit through polling a plurality of nodes wherein the nodes are connected to the monitor via broadband network and wherein the monitoring unit comprises a polling order determining unit, a polling interval determining unit, and a control unit that controls the monitoring unit to carry out polling of the plurality of nodes to be monitored by <u>selecting nodes associated with a</u>

transmission line to be polled based on the basis of a comparison of a ratio of the total

number of nodes in the network being monitored divided by the number of nodes

associated with the transmission line with a ratio of the current total polled nodes in the

network divided by the current total number of polled nodes associated with the

transmission line.   It is noted that the closest prior art Takashi et al (Japanese Patent

Publication Number 02-131044) discloses selecting nodes to be polled based on a

constant polling interval.

Response to Arguments

1.   Applicant's arguments filed on 11/27/2006 have been fully considered but they

are not persuasive.

2.   In the Remarks, on page 12, Applicant simply argues Takashi et al does not

teach the method of determining communication interval claimed in claim 1 in terms of

ratios. Examiner respectfully disagrees.

Takashi shows in particular in the constitution section that once a polling period

is determined for polling the nodes in the network then the polling interval (i.e.

communication interval) is simply the quotient from the division of the polling period by

the total number of nodes. Taking into account each node's processing time by

subtracting it from the already determined quotient does not change the effective polling

interval from being the quotient as taught by Takashi from the perspective of the next

node about to be polled.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571 272 3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HM
03-01-2007

CHI PHAM
SUPERVISORY PATENT EXAMINER 3/2/07